Serial No. 09/752,939 Response to Final Office Action Page 2

In the Claims

Please amend the following claims:

1. (Twice Amended) An oxygen-delivery matrix, comprising, a biocompatible matrix, comprising a polymer network, a non-gellable polysaccharide, and oxygen, wherein the oxygen is generated in the matrix in the manufacture of the matrix, creating multiple oxygen-rich, closed cells within the matrix,

and wherein the non-gellable polysaccharide and oxygen are dispersed throughout the polymer network.

(Amended) The matrix of Claim 6, wherein the decomposition of the peroxide is caused by a catalyst.

(Amended) The matrix of Claim 7, wherein the catalyst is a salt of iodide, manganese dioxide or cupric chloride.

(Twice Amended) The matrix of Claim 1, wherein the polymer network comprises a natural or synthetic polymer.

(Amended) The matrix of Claim 2, wherein the active agent comprises gases, anti-microbial agents, anti-fungal agents, anti-bacterial agents, anti-viral agents, anti-parasitic agents, mycoplasma treatments, growth factors, proteins, nucleic acids, angiogenic factors, anaesthetics, mucopolysaccharides, metals, pharmaceuticals, chemotherapeutic agents, herbicides, growth inhibitors, anti-fungal agents, anti-bacterial agents, anti-viral agents and anti-parasitic agents, wound healing agents, growth promoters, indicators of change in the environment, enzymes, nutrients, vitamins, minerals, carbohydrates, fats, fatty acids, nucleosides, nucleotides, amino acids, sera, antibodies and fragments thereof, lectins, immune stimulants, immune suppressors, coagulation factors, neurochemicals, cellular receptors, antigens, adjuvants and radioactive materials.

BG

(Amended) The matrix of Claim 21, wherein the growth factor agents comprise basic fibroblast growth factor, acidic fibroblast growth factor, nerve growth factor, epidermal growth factor, insulin-like growth factors 1 and 2, platelet derived growth factor, tumor angiogenesis factor, vascular endothelial growth factor, corticotropin releasing factor, transforming growth factors α and β , interleukin-8, granulocyte-macrophage colony stimulating factor, interleukins, and interferons.

(Amended) The matrix of Claim 27, wherein the polymer network comprises a natural or synthetic polymer.

13/

(Amended) The matrix of Claim 28, wherein the polymer network comprises collagen, gelatin, chondritin, calmodulin, cellulose, agar, agarose, animal hide, hyaluronic acid, dextran, alginate, polylysine, resorbable polymers, polyacrylamide, polymethacrylate, polyacrylate, polybuterate, polyurethane foam, polyether, silastic, silicone elastomer, rubber, nylon, vinyl and cross-linked dextran.